Remarks/Arguments

Claims 1-5 and 7-18 are pending. Applicant notes with appreciation the allowance of claims 5 and 7-12. Although no amendments to the claims have been made in the present Response, a listing of the claims is included for the Examiner's convenience. Reconsideration of this application in light of the following remarks is requested.

Objection to the Specification

Applicant has amended the specification by correcting a typographical error. Accordingly, Applicant submits that the objection to the specification has been addressed.

Rejections under 35 U.S.C. § 103(a)

Claims 1-4 and 13-18 stand rejected under 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. 6,658,565 to Gupta et al. ("Gupta") in view of U.S. Patent No. 6,449,657 to Stanbach et al. ("Stanbach"). As provided in MPEP § 2143, "[t]o establish a prima facie case of obviousness, ... the prior art reference (or references when combined) must teach or suggest all the claim limitations." Furthermore, under MPEP § 2142, "[i]f the examiner does not produce a prima facie case, the applicant is under no obligation to submit evidence of nonobviousness." It is submitted that the Office action does not factually support a prima facie case of obviousness based on Gupta and Stanbach for the following reasons.

Claims 1-4

Claim 1 recites, in part, a method comprising queuing the hash bucket to a processor so that the workload of all the processors are balanced, wherein the queuing includes applying a queuing model to packets in the hash bucket to prevent packets from a particular connection from utilizing an excessive amount of the processor's time, and wherein a plurality of packets from different connections can be assigned to the

same hash bucket.

The Office action cites Gupta (Figures 3 and 4; and col. 5, line 42 – col. 6, line 10) to render obvious the portion of claim 1 reciting "queuing the hash bucket to a processor so that the workload of all the processors are balanced, wherein the queuing includes applying a queuing model to packets in the hash bucket to prevent packets from a particular connection from utilizing an excessive amount of the processor's time." However, the cited text of Gupta fails to teach or suggest applying a queuing model to packets in the hash bucket, and instead discloses (at col. 5, lines 49-55):

> If apportioning of the processing load according to the second technique results in unbalanced division of work among the switches ..., a more sophisticated hash function may be employed that divides the packets into substantially more buckets than the previous hash function. According to this third inventive technique, each switch is assigned an equal number of buckets and if any switch is burdened with excessive processing responsibility, additional buckets are exchanged among the switches.

The cited text of Gupta is directed to balancing the load among the switches, and is not addressed to queuing within a hash bucket as is recited in claim 1. Not only is the cited text of Gupta not directed to queuing within a hash bucket, but the solution it employs for solving the "unbalanced division of work among the switches ... divides the packets into substantially more buckets." Applicant can find no teaching or suggestion of queuing within a hash bucket in the cited text of Gupta, and Stanbach fails to cure this deficiency. Accordingly, the combination of Gupta and Stanbach fails to teach or suggest all the claim limitations of claim 1 as required by MPEP § 2143, and claim 1 is allowable over the cited references. Claims 2-4 depend from and further limit claim 1 and are therefore allowable for at least the same reason as claim 1.

In addition, as admitted in the Office Action, Gupta fails to teach the element of claim 1 reciting "wherein a plurality of packets from different connections can be

assigned to the same hash bucket," and Stanbach is relied upon to render this element obvious. However, the hash table disclosed by Stanbach is used for storing host domain name information. More specifically (at col. 8, lines 52-67):

> In step 608, the newly updated domain name information is stored in the host name hash table 332. That is, information added to the domain name table of database 344 is added to the host name hash table 332; information modified in the domain name table of database 344 is modified in the host name hash table 332; and information deleted from the domain name table of database 344 is deleted from the host name hash table 332. According to one embodiment, only the domain name is stored in the host name hash table 332, as the information used for the response can be drawn from the address table 336. However, in other embodiments, the host name hash table can comprise additional information, such as information detailing requests for the particular domain name--e.g., a counter, and/or a reference URL (the URL from which the request was made--e.g., "yahoo.com").

Applicant submits that Stanbach fails to remedy the deficiencies of Gupta because Stanbach also fails to teach or suggest assigning a plurality of packets from different connections to the same hash bucket as required by claim 1. More specifically, Stanbach does not teach or suggest assigning packets from different connections to the same hash bucket, but instead discloses that "the host name hash table 332 is queried by the request handler thread 320, 324 or 328. Specifically, the request handler thread 320, 324 or 328 searches the host name hash table 332 for a matching host name." (col. 7, lines 50-53). Accordingly, the combination of Gupta and Stanbach fails to teach or suggest all the claim limitations of claim 1 as required by MPEP § 2143, and claim 1 is allowable over the cited references. Claims 2-4 depend

from and further limit claim 1 and are therefore allowable for at least the same reason as claim 1.

Claims 13-15

Claim 13 recites in part assigning one or more hash buckets to a processor timer thread based on a workload thereof so that the processor only processes the connection mapped to the assigned hash buckets.

As admitted in the Office Action, Gupta fails to teach the above element of claim 13 and relies upon Stanbach to render this element obvious. However, the cited text of Stanbach is directed to a "host name hash table 332" (at col. 8, lines 52-67, as described above in greater detail). The host name hash table is "queried by the request handler thread 320, 324 or 328. Specifically, the request handler thread 320, 324 or 328 searches the host name hash table 332 for a matching host name." (col. 7, lines 50-53). Applicant submits that Stanbach fails to teach or suggest assigning one or more hash buckets to a processor timer thread based on a workload thereof so that the processor only processes the connection mapped to the assigned hash buckets as required by MPEP § 2143, and claim 13 is allowable over the cited reference. Claims 14 and 15 depend from and further limit claim 13 and are allowable for at least the same reason as claim 13.

Claims 16-18

Claim 16 recites similar elements to those of claim 13. Accordingly, claim 16 is allowable for at least the same reasons as claim 13. Claims 17 and 18 depend from and further limit claim 16 and are allowable for at least the same reason as claim 16.

Conclusion

Accordingly, Applicant respectfully submits that all claims are in condition for allowance. Should the Examiner have any further comments, the Examiner is invited to contact the Applicant at the below listed number.

Respectfully submitted,

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I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on March 21, 2005.

Gayle Conner

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